

FISCAL NOTE FOR PROPOSED AMENDMENTS TO THE OYSTER AND HARD CLAM FISHERY MANAGEMENT PLANS

Rule Amendments: 15A NCAC 03K .0201 OYSTER HARVEST MANAGEMENT
15A NCAC 03K .0202 CULLING REQUIREMENTS FOR OYSTERS
15A NCAC 03K .0302 MECHANICAL HARVEST OF CLAMS FROM PUBLIC BOTTOM
15A NCAC 03O .0114 SUSPENSION, REVOCATION AND REISSUANCE OF LICENSES
15A NCAC 03O .0201 STANDARDS AND REQUIREMENTS FOR SHELLFISH BOTTOM LEASES AND FRANCHISES AND WATER COLUMN LEASES
15A NCAC 03O .0208 TERMINATION OF SHELLFISH BOTTOM LEASES AND FRANCHISES AND WATER COLUMN LEASES

Name of Commission: N.C. Marine Fisheries Commission

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Impact Summary: State government: Yes
Local government: No
Private impact: Yes
Substantial impact: No

Authority: 113-134. Rules.
113-182. Regulation of Fishing and Fisheries.
113-182.1. Fishery Management Plans.
113-221.1. Proclamations; Emergency Review.
143B-289.52. Marine Fisheries Commission – Powers and Duties.

Necessity: In accordance with G.S. 113-182.1 (b) and (d), the proposed rule changes (see proposed rule text in Appendix 1) are necessary to amend and update the N.C. Oyster Fishery Management Plan Amendment 4 and Hard Clam Fishery Management Plan Amendment 2 to ensure adequate management of the oyster and hard clam resource and fisheries in state waters. Specifically, the rule changes address five separate issues and propose to:

- 1) Amend 15A NCAC 03K .0201 to set the maximum harvest limit for oysters at 20 bushels per commercial operation to align with current management, as well as make the rule language consistent with other rules containing proclamation authority;
- 2) Amend 15A NCAC 03K .0202 to reduce the culling tolerance for sublegal oysters, oyster shell, and cultch material from 10 percent to five percent;

- 3) Amend 15A NCAC 03K .0302 to remove the clam mechanical harvest area on public bottom in Pamlico Sound that is no longer opened to harvest and make the rule consistent with other rules containing proclamation authority;
- 4) Amend 15A NCAC 03O .0114 to add convictions of theft on shellfish leases and franchises to the rule which subjects licensees with convictions to license suspension and revocation, thereby putting in place stricter penalties as a deterrent to theft on shellfish leases and franchises; and
- 5) Amend 15A NCAC 03O .0201 and 03O .0208 to clarify how production and marketing rates are calculated for shellfish leases and franchises, expand the maximum lease area from five to 10 acres, specify criteria that allows a single extension period for shellfish leases of no more than two years per contract period to meet minimum production and marketing requirements, and reorganize the rules for improved clarity.

The anticipated effective date of the proposed rule changes is May 1, 2017.

1. Daily Possession Limit for Oysters (15A NCAC 03K .0201)

I. Summary

In accordance with the N.C. Oyster Fishery Management Plan Amendment 4, the proposed rule amendment reduces the maximum allowable daily harvest limit for oysters that can be set by proclamation from 50 bushels to 20 bushels to align it with current management. In most recent years the harvest limit is set by proclamation at no more than 15 bushels per commercial operation and limits have not exceeded 20 bushels per commercial operation in over 25 years. Additional proposed amendments make the rule consistent with other rules containing proclamation authority. These limits are set with the intention of protecting oyster resources and habitat from the effects of excessive harvest while still allowing flexible harvest limits.

II. Introduction and Purpose of Rule Changes

In 1984, the oyster harvest limit was set via proclamation at 50 bushels per vessel per day. An addition to the proclamation authority in 1989 placed an upper harvest limit of 50 bushels of oysters per commercial fishing operation, but allowed the director to set lower harvest limits. Harvest limits for the mechanical harvest fishery were reduced to 20 bushels per fishing operation from 1990 through the spring 1992. Mechanical harvest oyster limits were then set at 15 bushels per fishing operation from the 1992-93 season through the 2015-16 season except for a brief period during the 2004-05 season when the limit was increased to 20 bushels due primarily to large increases in fuel costs. Setting the lower oyster harvest limit at 15 bushels for mechanical harvesters (and five bushels for hand harvesters) was in response to low population levels observed due to *Perkinsus marinus* (Dermo) parasite-induced mortalities and to protect the long-term viability of the oyster resource and fishery from overharvest.

Rule 15A NCAC 03K .0201 contains regulations for oyster harvest management. The rule is proposed for amendment to reduce the upper mechanical harvest limit from 50 bushels to 20 bushels. Setting the upper mechanical harvest limit at 20 bushels is the highest limit supported

by biological data and is the highest limit used in the oyster fishery in over two decades¹. Additional proposed changes to the rule clarify the Fisheries Director's proclamation authority of allowing the director to specify a minimum size of two and one-half inches for harvest to prevent loss of oysters due to predators, pests or disease. The rule changes align with the original intent of the provision currently in the rule that allows for a minimum size limit as small as two and one-half inches, as well as the minimum size limit of three inches that is intended in the absence of predators, pests or disease. Any other catastrophic environmental conditions affecting oysters would be rare events that can be managed under Rule 15A NCAC 03I .0102 which allows the Fisheries Director to suspend in whole or in part, any rule regarding oysters which may be affected by variable conditions, and Rule 15A NCAC 03H .0103 which provides the variable conditions (Appendix 2). Removing redundant language in Rule 03K .0201 simplifies the rule, making it more easily understood by the public and enforced.

Additional rule changes to the proclamation authority for the management of the oyster fishery are proposed as part of an ongoing attempt to standardize rule language granting proclamation authority across North Carolina Marine Fisheries Commission rules. The North Carolina Division of Marine Fisheries (NCDMF) staff has identified that the wording for proclamation authority across several rules differs from rule to rule. In an attempt to improve consistency across rules and public understanding of proclamation authority, NCDMF seeks to standardize rule language describing proclamation authority when possible.

III. Costs

Lowering the harvest limit for oysters from a maximum of 50 bushels per commercial fishing operation to 20 bushels does not change the management of the oyster fishery, but aligns with current management and removes the ability to raise limits beyond what is biologically justifiable (Table 1). Without the proposed rule change, fishery participants would still be capped at or below 20 bushels per commercial operation under the authority of the Oyster Fishery Management Plan and using the existing rule and proclamation authority. Therefore, the rule change has no material impact on participants in the fishery and is not expected to impose any quantifiable costs. Additional clarifying changes made to the proclamation authority language are not intended to alter the current authority or management, and are not expected to incur any costs.

¹ North Carolina Division of Marine Fisheries (NCDMF). 2010. Supplement A to Amendment II of the NC Oyster Fishery Management Plan. Changing Management Measures for Harvest Limits in the Mechanical Harvest Oyster Fishery. North Carolina Department of Environment and Natural Resources. North Carolina Division of Marine Fisheries. Morehead City, NC. 14 p.

Table 1. Landings and effort information for the public bottom mechanical harvest oyster fishery 2004/05 through 2009/10. During the 2004/05 season the limit was increased to 20 bushels due primarily to large increases in fuel costs. For all other years, the maximum daily harvest limit was 15 bushels.

OYSTER SEASON	VESSELS	TRIPS	POUNDS of meat	BUSHELs	CPUE Bu./trip	Crew % 1 crew/% 2 crew
2004/05	131	1,769	114,587	21,661	12	49/51
2005/06	155	2,476	137,646	26,020	11	45/55
2006/07	134	1,783	98,090	18,543	10	42/58
2007/08	138	2,038	127,669	24,134	12	45/55
2008/09	160	2,918	176,307	33,328	11	44/56
2009/10	325	8,623	594,015	112,290	13	43/57

IV. Benefits

There are no quantifiable benefits from this rule change, but the public will benefit from a rule that more accurately reflects the current management of the oyster fishery and rule language that is consistent with other rules granting proclamation authority. Consistency among rules granting proclamation authority aids in public awareness of what type of fisheries management measures may and may not be implemented.

2. Culling Tolerance for Oysters (15A NCAC 03K .0202)

I. Summary

Proposed rule amendments reduce the culling tolerance for oyster harvest from 10 percent to five percent for the possession of accumulated dead shell, oyster cultch material, and sublegal oysters from public bottom. This change is expected to improve and protect the oyster resource by reducing the amount of sublegal oysters incidentally harvested and increasing the amount of cultch material left by harvesters on oyster reefs, thereby providing substrate for oyster spat to adhere to and grow.

II. Introduction and Purpose of Rule Changes

North Carolina's oyster stocks are composed of both intertidal and subtidal populations. Due to the reef-building life history of oysters, legal-sized oysters, which are at least three inches in length will typically have several smaller sublegal adults, or juvenile "spat" adhered to their shells. To account for this trait, there is presently a 10-percent by volume culling tolerance of sublegal oysters allowed per bushel landed, and culled material is required to immediately be returned to the area being fished (Rule 15A NCAC 03K .0202). Marine Patrol Officers inspect fishermen for exceeding the tolerance limit by using a certified metric bushel tub and a keeler which is 10 percent of the tub by volume. A bushel of oysters is dumped into the metric bushel tub. The officer culls sublegal oysters from the bushel and places them into the 10-percent

keeler. If the keeler becomes full before the metric bushel is empty, the catch is over the 10-percent tolerance level and a citation may be written for the violation.

There is growing concern over the extent of oyster harvest pressure and its impact on the long-term sustainability of the oyster fishery occurring in some parts of coastal North Carolina. The N.C. Marine Fisheries Commission has proposed to reduce the culling tolerance from 10 percent to five percent for the possession of accumulated dead shell, oyster cultch material, and sublegal oysters. This is being implemented with the intention of reducing the amount of sublegal oysters incidentally harvested and to increase the amount of cultch material left on harvested oyster reefs for oyster spat to adhere to and grow.

The current three-inch minimum size limit is intended to prevent excessive habitat damage by allowing sublegal mature oysters to remain uncollected and encouraging harvesters to move to more productive areas. This allows live oysters to remain and serve as broodstock or settlement sites for future spat recruitment. With increasing participation and pressure on the fishery, harvesters are forced to more thoroughly break up clusters of oysters and multiple individuals may work in an area for a longer period of time. Each bushel of landed oysters has an allowance of up to 10 percent by volume of sublegal oysters, oyster shells, and cultch material. With this culling tolerance, there is the possibility that as a particular oyster reef is fished by multiple individuals, a substantial portion of sublegal oysters and cultch material can be removed. The reduction to a five percent culling tolerance would reduce the possibility of removing a substantial amount of sublegal oysters and shell material, and require harvesters to more carefully inspect or cull their catch.

III. Costs

To properly enforce the new culling tolerance, Marine Patrol will need to buy new keelers that represent five percent of a bushel instead of the current 10 percent of a bushel. It is anticipated that 44 keelers will be purchased, costing approximately \$60 per keeler or \$2,640 overall. If a fisherman's catch is over the current 10-percent tolerance level, resulting in a citation for the violation and it is a first violation that is upheld in court, the fisherman would be charged \$180 in court costs. In addition, if the undersize portion of the catch is less than 20 percent, the fisherman would be charged a fee of \$35; greater than 20 percent would result in a \$50 fee (second and subsequent offenses are at the judge's discretion). During the 2013/14, 2014/15 and 2015/16 oyster seasons, an average of 24 citations were issued each year for undersize oysters. Citations can be issued to recreational fishermen, commercial fishermen, and fish dealers. If every citation was upheld in court, and assuming half of all citations were for undersize oysters comprising less than 20 percent of the catch $[(\$180 + \$35) \times 12]$ and half greater than 20 percent $[(\$180 + \$50) \times 12]$, the average cost of all citations in a given year would be \$5,340. An average of 24 citations issued per year represents an unknown percentage of overall participants harvesting or transacting in oysters who committed a violation for undersize oysters. While information is available about the overall number of dealers and the commercial participants in the oyster fishery, since no license is required for the recreational harvest of oysters, there is no mechanism by which to identify recreational participants. In the commercial fishery, from 2012-2014, an average of 946 participants per year sold oysters². Using only the average number of commercial participants, assuming all citations issued were issued to commercial fishermen, the average number of citations issued represents 0.025% of commercial participants. Adding in the dealers

² North Carolina Division of Marine Fisheries License and Statistics Section 2015 Annual Report, p. II-32. Retrieved from http://portal.ncdenr.org/c/document_library/get_file?uuid=868c91b9-e27c-412f-b204-7580b4c88639&groupId=38337.

and unknown number of recreational participants, of which a few may have been issued a citation yields a determination that the overall percentage of all oyster fishermen and dealers receiving a citation for undersize oysters is less than 0.025%. Within this framework, even if the number of citations issued were to increase under a five-percent culling tolerance, it would still affect a low number of the overall participants.

Costs imposed on fishermen will be highly variable between individuals, areas, from year to year, and even within a year, depending on the condition of the oyster resource being harvested. Oysters typically grow in clusters and are “knocked” or broken into individuals, and legal sized (three inches or greater) oysters are retained. Due to the reef building life history of oysters, legal sized oysters will typically have several smaller sublegal adult or juvenile “spat” adhered to their shells. Culled material is required to immediately be returned to the area being fished (Rule 15A NCAC 03K .0202). The three-inch minimum size limit is intended to prevent excessive habitat damage by allowing sub-legal mature oysters to remain uncollected, encouraging harvesters to move to more productive areas. This would allow live oysters to remain and serve as broodstock or settlement sites for future spat recruitment. Typically, during the beginning of the open harvest season, more legal-sized oysters are present in the system and less time is needed for the fishermen to inspect and cull their catch. As the season progresses, less legal sized oysters may become available, and more time and effort is needed to cull the material and undersized oysters from the harvest. The five percent reduction in culling tolerance may not impact some fishermen at all. Other fishermen may need to spend more time inspecting and culling harvested oysters to ensure that the lower culling tolerance is not exceeded. Some fishermen may also need to spend more time fishing to reach the regional daily trip limit for oysters in their area or travel to areas where oyster abundance is greater. This increased effort and handling could have a detrimental impact on the oyster resource, particularly when mechanical gear is used. Due to the great degree of variability, these costs are very difficult to quantify with any certainty, but there is the overall potential to make oyster fishing operations less efficient.

IV. Benefits

The proposed rule change may improve and protect the oyster resource and the sustainability of the commercial oyster industry and the recreational fishery by increasing the amount of cultch material left by harvesters on oyster reefs, providing substrate for oyster spat to adhere to and grow. The reduction in culling tolerance may also decrease the amount of sublegal oysters harvested, thereby allowing them to grow to legal size the following year and continue to provide ecosystem services such as water filtration, nutrient reduction, shoreline stabilization, and as habitat for multiple other economically important species of fish and crustaceans. These ecosystem services are not quantifiable. A more stable population of legal-sized oysters would ensure continued revenues for oyster harvesters. DMF estimated the value of the oysters harvested commercially from state waters in 2015 to be \$3.9 million.³ The long-term difference in the value of the commercial oyster fishery harvests that will result from this rule change is not quantifiable due to the number of locally-specific and variable factors that affect oyster populations. For the recreational fishery, since no license is required for the recreational harvest of oysters, there is no mechanism by which to identify recreational participants. A mail survey began in October 2011 to develop catch and effort estimates for the recreational harvest of shellfish, including oysters; however, despite a relatively high response rate, the number of responses with reported oyster harvesting activity is too low to produce precise estimates of

³ North Carolina Department of Environmental Quality, Division of Marine Fisheries (2015). *Marine Commercial Finfish and Shellfish Harvest Statistics*. Retrieved from <http://portal.ncdenr.org/web/mf/statistics/comstat/2015>.

catch.⁴ The proposed rule change will likely have a qualified benefit to the recreational oyster fishery that would come from a more stable population of legal-sized oysters.

3. Removal of Mechanical Clam Harvest Area on Public Bottom in the Pamlico Sound (15A NCAC 03K .0302)

I. Summary

The proposed rule amendment seeks to remove the clam mechanical harvest area on public bottom in Pamlico Sound that is no longer opened to harvest and make the rule consistent with other rules containing proclamation authority language. This rule change is being implemented to minimize user conflicts with the commercial crab fishery, protect oyster and submerged aquatic vegetation (SAV) resources, and more clearly reflect the current management of this area. The rule change is also proposed to address rule clarity and improve consistency with other marine fisheries-related rules for proclamation authority.

II. Introduction and Purpose of Rule Changes

Mechanical methods for clamming are defined as dredges, hydraulic clam dredges, stick rakes and other rakes when towed by engine power, patent tongs, kicking with propellers or deflector plates with or without trawls, and any other method that utilizes mechanical means to harvest clams (15A NCAC 03I .0101(3)(I)). The two types of mechanical harvest gears currently used in North Carolina are hydraulic escalator dredges and a clam trawl or “clam kicking” vessel. Hydraulic escalator dredges have an escalator or conveyor located on the side of the vessel. A sled is connected to the front end of the escalator. When the front end of the escalator is lowered to the bottom, the sled slides over the bottom. A blade on the sled penetrates the bottom to a depth of about four inches (10 cm) and collects the clams as they are forced from the bottom by water pressure. In clam trawling or “kicking”, clams are dislodged from the bottom with propeller backwash and a heavily chained trawl with a cage attached at the cod end is towed behind the boat and gathers the clams.

Mechanical methods are both effective and efficient because they allow the harvest of clams that would otherwise not be accessible by hand gears due to water depth, weather, or bottom type. These mechanical harvest methods can also negatively impact SAV and oyster resources. The public mechanical clam fishery has been heavily managed for quite some time to reduce the potential negative ecological impacts caused by disturbances to the bottom with these gears. Due to the severe disturbance to the bottom, mechanical clam harvest is restricted to open sand and mud bottoms.

An area in Pamlico Sound was added to the list of areas in rule that could be opened in the 2001 Hard Clam Fishery Management Plan to initiate a two-year open and closed harvest rotation with an area in northern Core Sound (NCDMF 2001). During the first year of rotation (2001/2002), larger boats fished Pamlico Sound successfully with the average catch of 15 bags a trip, although the majority of the fishermen were catching their 20-bag limit in the beginning of the season. There were 195 trips made in Pamlico Sound landing over 3,000 bags of clams. The second year of the rotation plan (2002/2003) had much lower trips and lower landings in

⁴North Carolina Division of Marine Fisheries License and Statistics Section 2015 Annual Report, p. V1-23. Retrieved from http://portal.ncdenr.org/c/document_library/get_file?uuid=868c91b9-e27c-412f-b204-7580b4c88639&groupId=38337.

Pamlico Sound. Only 45 trips were made landing 700 bags of clams. By the time of the start of the second rotation with Pamlico Sound, the channel by Wainwright Island had filled in making it impossible for the larger boats to get to the Pamlico Sound kicking area. There were no landings made from Pamlico Sound during the 2005/2006 season. The 2006/2007 season suffered from low clam prices and high fuel prices. Only two fishermen were reported mechanically harvesting that season, landing only 40 bags of clams.

The mechanical harvest area for clams in the Pamlico Sound may be opened by proclamation, but has not been opened since 2007. In Amendment 1 of the Hard Clam Fishery Management Plan, the Marine Fisheries Commission selected to discontinue rotation of Pamlico Sound with northern Core Sound, but keep the Pamlico Sound area for mechanical clam harvest in rule (NCDMF 2008). Running time for those boats fishing in Pamlico Sound decreased the work day from eight hours a day to five or six hours a day. Deep water and weather conditions also limited the area to the larger vessels. Crab pot fishermen also complained about impacts to the blue crab fishery in that area because of mechanical harvest. The mechanical clam harvest area in Pamlico Sound also overlaps with the no trawl area (15A NCAC 03R .0106). This area has remained closed due to several factors: little to no use in the years preceding 2008 by commercial clam harvesters, potential user conflicts with commercial crab fishermen, division concerns that clam recruitment is not high enough to sustain mechanical harvest in the area, difficulties in vessels travelling to the open area, low clam prices and high fuel costs, and to protect oyster and SAV resources in the area. These conditions and concerns remain and it is unlikely that the mechanical harvest area in the Pamlico Sound would be opened in the future; therefore, the proposed rule change seeks to remove this portion of Pamlico Sound from the list of areas that may be opened by proclamation to mechanical harvest of clams.

Additional rule changes to the proclamation authority for the management of the clam fishery are put forth as part of an ongoing attempt to standardize rule language granting proclamation authority across marine fisheries rules. The NCDMF staff has identified that the wording for proclamation authority across several rules differs from rule to rule. In an attempt to improve consistency across rules and public understanding of proclamation authority, NCDMF seeks to standardize rule language describing proclamation authority when possible.

III. Costs

Commercial fishermen may face some potential forgone harvest, but no realized costs from removing this area of the Pamlico Sound to potential mechanical clam harvest. The area has not been opened since 2007 to mechanical clam harvest and is unlikely to be opened in the future, should the rule change not occur. It is the understanding of the NCDMF that the years prior to the closure exhibited little to no effort or landings for clams taken with mechanical gear from this area, so the potential forgone commercial landings are likely minimal. Additional clarifying changes made to the proclamation authority language are not intended to alter the current authority or management, and are not expected to incur any cost.

IV. Benefits

There are no quantifiable benefits from this rule change, but the change will continue to minimize conflicts with the commercial blue crab fishery and provide protection for oyster and SAV resources in the area. Clarifications to proclamation authority will benefit the public by providing a rule that more accurately reflects the current management of the clam fishery and makes the rule language consistent with other rules granting proclamation authority. Consistency among

rules granting proclamation authority aids in public awareness of what type of fisheries management measures may and may not be implemented.

4. Increase Penalties for Theft of Shellfish or Gear from Leases and Franchises (15A NCAC 03O .0114)

I. Summary

Shellfish growers have voiced concern about the amount of money they invest in the growing of clams and oysters on leases and franchises compared to the amount of money an individual would be fined if found guilty of taking shellfish from a private culture operation. Stricter penalties are expected to assist in reducing lease theft and associated aquaculture equipment damage. Proposed rule changes add convictions of theft on shellfish leases and franchises to the rule (15A NCAC 03O .0114) which subjects licensees with convictions to fishing license suspension and revocation, thereby putting in place stricter penalties as a deterrent to theft on shellfish leases and franchises.

II. Introduction and Purpose of Rule Changes

In North Carolina, the private culture of shellfish is conducted on shellfish leases and franchises. A shellfish lease or franchise provides the opportunity for citizens of North Carolina to hold an area of public estuarine bottom or water column for the commercial production and harvest of shellfish as long as minimum production requirements are met. Grow-out options for both bottom culture and water column exist. Bottom culture refers to shellfish grown on or within the estuarine bottom utilizing natural set, cultch planting, seed plantings or seed within single predator protection bags bedded in the bottom. In operations utilizing the water column, shellfish can be grown in gear which resides from the estuarine bottom to the water surface. In order to use the water column, a bottom lease with a water column amendment is required.

Over 90 percent of all shellfish lease applications from 2012-2014 have been for shellfish culture within the water column. Growing shellfish in the water column requires a substantial amount of investment in gear, as well as the initial investment in seed shellfish. There is a substantial cost to the owners of these leases in the start-up and maintenance of their product and gear. The investment in aquaculture gear and seed to grow out one million oysters in the water column can cost \$50,000 or more. Bottom culture lease owners can also have tens of thousands of dollars of shellfish product on a lease. With a sizable amount of capital tied up in a lease or franchise, one of the biggest concerns of shellfish growers is theft and intentional damage of shellfish and/or gear from their grow-out location.

Bottom shellfish leases are susceptible to theft of oysters or clams harvested illegally usually by hand and often during the night. Intensive grow-out methods that utilize the water column are more susceptible to theft because the oysters are grown in floating bags or cages on the surface. Also, the value of water column oysters is usually much higher than traditionally grown bottom or wild caught oysters. Bottom lease or wild caught oysters are usually grown on cultch (shell) and must be culled from other oysters. This product is sold on the bushel market for around \$40 per bushel, (approximately 300 oysters). The intensive water column methods utilize hybrid triploid seed for faster growth and oysters are grown as singles commanding as much as 40 to 50 cents for each oyster. These oysters are intended for the half shell market.

Currently there are two statutes that address larceny of shellfish from private bottom and damage to an aquaculture facility or operation:

G.S. 113-208. Protection of private shellfish rights.

G.S. 113-269. Robbing or injuring hatcheries and other aquaculture operations.

Paragraph (a) of G.S 113-208 sets the penalty for unauthorized taking of shellfish from private bottom as follows:

(a)(2) . . . A violation of this section shall constitute a Class A1 misdemeanor, which may include a fine of not more than five thousand dollars (\$5,000). The written authorization shall include the lease number or deed reference, name and address of authorized person, date of issuance, and date of expiration, and it must be signed by the holder of the private shellfish right. Identification signs shall include the lease number or deed reference and the name of the holder.

If an individual steals product or gear from a shellfish growing operation and is convicted of this statute he/she would be guilty of a Class A1 misdemeanor, which may include a fine up to \$5,000. Despite the maximum penalty, the actual fine is ultimately up to the discretion of the individual judge, with many fines being minimal or not issued at all. Over a 21-year timeframe (1994-2014), there were 49 citations issued and 39 convictions for stealing shellfish from a growing operation. Fines ranged from \$0 to \$58.30, with the average fine being approximately \$25. These fines are several times less than the market value of the stolen product, creating little deterrent to shellfish theft. The threat of a fine up to \$5,000 has done little to deter violators from stealing shellfish from leaseholders.

Convictions under the above-referenced statutes that address larceny of shellfish from private bottom and damage to an aquaculture facility or operation do not count toward license suspension or revocation. Shellfish growers have expressed the need for stricter penalties to discourage theft from shellfish lease and franchises. To address this concern, rule changes are being proposed for shellfish theft violations to fall under 15A NCAC 03O .0114, which allows the Fisheries Director to suspend or revoke fishing licenses. Under this rule change, a violator shall have their fishing license revoked for a period no less than one year upon conviction of theft from a shellfish growing operation. This rule change is proposed to provide a more effective deterrent to theft from shellfish leases. In simple terms, a suspension is when a license is taken away from a license holder for a certain amount of time. At the end of the timeframe, the license is returned to the license holder and he/she can continue to use the license. A revocation is when a license is taken away from the license holder forever; however, the former license holder may, after a specified time (usually one year), petition the director of the NCDMF to reinstate the license. There is no guarantee the license will be reinstated; it is solely in the director's discretion.

From 2013 through 2015, the NCDMF only revoked an average of five fishing licenses per year. Because of the lack of authority, none of these revocations were for stealing product or gear from a shellfish growing operation. The theft of product or gear from a shellfish growing operation often goes undetected and unreported to law enforcement. One reason for this is that fishing gear is often left unattended in the isolated and remote waters of the state where it is vulnerable to theft. In these areas, there is no one around to see the offense being committed; thefts often occur at night. Another reason is that theft in small amounts may not alarm a leaseholder. Factors such as winds, tides, and currents, or damage from passing boats, limbs/logs, and other debris can cause small losses of product or gear that fishermen expect in normal operations. So, if someone is stealing small amounts of product or gear, it would not necessarily "set off an alarm" with a leaseholder. This practice of stealing a little here or there from a fisherman has been referred to

as “plucking” by the fishing community. “Plucking” is hard to catch and goes unreported in most cases. Despite the overall small number of license revocations, the legitimate potential consequence of license revocation for someone considering committing the crime of stealing shellfish product or gear (after the rule change) will serve as a deterrent to committing the crime, a change the shellfish growers support. Even when multiple offenses of laws are combined into a plea agreement, which minimizes the consequences intended to serve as a deterrent, convictions of the above-references statutes would still result in license revocation. This would ensure a meaningful conviction, potentially reducing the number of thefts as well as the destruction of shellfish growing gear that often accompanies theft.

III. Costs

Costs to Convicted Violators

Violators who are found guilty of stealing shellfish from a growing operation will have their fishing licenses revoked. In doing so, commercial fishing license holders or for-hire captains will lose their ability to make income from fishing activities. Recreational fishing license holders will lose their ability to legally catch and harvest marine and estuarine finfish. The extent to which this cost will be realized will be highly variable among individuals.

Over a 21-year timeframe (1994-2014), there were 49 citations issued and 39 convictions for stealing shellfish from a growing operation. Even assuming that the conviction rate remains constant, the number of revocations that will be issued for this crime is unknown. An average of five licenses are currently revoked each year, but the number of revocations that will occur as a result of this rule change is uncertain because current revocations are for crimes other than the theft of shellfish product or gear. Therefore, the number of fishermen who may have their licenses revoked or suspended cannot be quantified due to uncertainty.

Costs to Deterred Violators

Given that offenders have standing in society and any impact on this population is included in the calculation of overall social welfare, individuals who are deterred from stealing or damaging gear or product due to the rule change will incur the cost associated with foregoing the crime. The crime is a transfer from owners to offenders. The cost of deterred crime to would-be violators is calculated as the sum of the value of the goods that would have been stolen less any reduction in the value of those goods (sales value may be less for stolen goods). This impact cannot be quantified because the behavioral response to the new penalties and thus the number of thefts that will be deterred by the rule change is uncertain.

Costs to the State

Assuming the same number of license revocations as the recent annual average of five were to result from convictions of theft of shellfish product or gear under the rule change, and assuming all five licenses were the state license with the highest cost, the Standard Commercial Fishing License at \$400/year, the state impact would be \$2,000 in the initial year from loss of license renewal fees. This estimate is highly uncertain.

Enforcement processes will not change and the number of revocations are assumed to be low. Therefore, the rule change will not create any new administrative costs to the state. The impact could be variable in following years depending on if a former license holder petitioned for a license to be reinstated, the outcome of the petition, or in the absence of a petition, other factors that may have caused the fisherman to not renew the license for various other reasons.

IV. Benefits

The proposed rule changes are expected to enhance the property rights of shellfish growers. Shellfish leases granted in North Carolina are treated like real property under G.S. 113-202 and can be transferred, willed to heirs, etc. Increased protection of shellfish leases may increase the resale value of an existing lease. The potential revocation of licenses for those convicted of stealing shellfish from a lease is anticipated to decrease the occurrences of theft as well as the destruction of shellfish growing gear that often accompanies theft. The change in the number of thefts and the value of the deterred thefts cannot be quantified due to uncertainty about the behavioral response to the new penalties.

5. Modify Shellfish Lease and Franchise Provisions (15A NCAC 03O .0201 and 03O .0208)

I. Summary

Proposed rule changes modify 15A NCAC 03O .0201 and 03O .0208 to clarify how production and marketing rates are calculated for shellfish leases and franchises to meet minimum production requirements, expand the maximum potential proposed lease size to 10 acres in all areas, specify criteria that allow a single extension period for shellfish leases of no more than two years per contract period to meet production and marketing requirements in the case of unforeseen circumstances, and reorganize the rules for improved clarity. These rule changes are being proposed to address stated concerns of shellfish growers in the state.

II. Introduction and Purpose of Rule Changes

Shellfish growers have expressed concern over the current shellfish lease and franchise provisions mandated by rule, specifically the lease terms, acreage limits, and minimum production requirements. Currently, leases are capped at five acres in areas where mechanical harvest is prohibited and 10 acres in areas where mechanical harvest is allowed. Lease holders must meet minimum production requirements over the five-year term of their lease and can apply for additional leases as long as their current lease or leases are meeting production requirements and do not exceed fifty acres in aggregate. These stipulations are put in place to prevent excessive amounts of public trust bottom and water column from being leased by a single person or entity and to ensure that the areas are being used for the intended purpose of shellfish production in commercial quantities.

The proposed rule changes clarify how production and marketing rates are calculated for shellfish leases and franchises to meet minimum production requirements. This change is being made to improve lease holders' understanding of these requirements and improve the ability to meet and exceed the minimum production targets.

The maximum lease size is also being increased from five to 10 acres in all areas to encourage lease expansion and shellfish production for those wishing to do so in areas where mechanical methods are prohibited. This change does not automatically grant additional acreage to leaseholders; the standard application process still applies, but the maximum acreage for which an application can be submitted is increased. The amount of marketable shellfish capable of being produced is, in part, a factor of acreage and grow-out methods. Larger amounts of acreage may increase the income potential for a lease site and therefore encourage greater investment. This has been the case in states such as Virginia where lease acreage can be as much as 200

acres for a single lease. Applicants with higher capital investments may choose to apply for more acreage to maximize production while incurring a single application fee versus applying for two smaller leases.

To increase flexibility in meeting production requirements under unforeseen circumstances, specific criteria are outlined in the proposed rule changes to allow a single extension period for shellfish leases of no more than two years per contract period to meet production and marketing requirements. Finally, the rules are reorganized for improved clarity and understanding.

III. Costs

There are no costs associated with the proposed rule changes that will be incurred by shellfish growers.

The state incurs administrative costs to process lease applications. The change in the number of lease applications that will occur as a result of this rule is uncertain, but the NCDMF does not expect this rule amendment to create a significant change in the number of lease applications above current trends.⁵ Therefore, costs to the state are expected to be minimal. Shellfish growers may already apply for 10-acre leases in the northern part of the state where mechanical harvesting methods are permitted. Traditionally, the larger lease applications are in the more open waters of the Pamlico Sound. NCDMF has only seen one 10-acre application for 2016. This rule affects the central and southern regions of the state where mechanical harvesting is prohibited and lease applications are currently limited to five acres. After the rule change, we do not anticipate a notable number of applications for 10-acre leases in these areas due to limited areas suitable for shellfish aquaculture. Currently, lease applications in the central and southern regions are less than the allowed five acres.

There may be some level of expansion of shellfish aquaculture activities encouraged by the rule changes that has the potential to impact the users of commercial gears for harvest of shellfish from public bottom (wild harvest) and other fisheries due to a prohibition on the use of certain active commercial gears on shellfish leases, such as trawls, long haul seines, or swipe nets. Recreational fishing license-holders would lose some ability to catch and harvest marine and estuarine finfish in areas where floating systems for water column leases are deployed. Boaters may also face some restrictions due to impediments to navigation that can be caused by shellfish leasing activities. Given the relatively small area currently leased for shellfish aquaculture (less than one percent of total fishable area in estuarine waters), an extensive public comment process that is required before a shellfish lease is granted, and cap on maximum acreage per lease and per individual or entity, it is expected that these impacts will be negligible and easily offset should they occur.

IV. Benefits

By expanding the allowable lease acreage from five to 10 acres in the central and southern regions of the state where mechanical harvesting is prohibited, large-scale shellfish growers will benefit from reduced per-acre costs of an application. This rule change may attract more large-scale investment in aquaculture. However, the NCDMF expects few new applications for 10-acre leases in these areas due to the restricted waterways, existing natural shellfish beds and the

⁵ The growing interest in shellfish aquaculture has seen a significant increase in lease applications for the 2016 calendar year. Currently, over 24 applications are pending where the past several years have seen an average of 12 applications per year, with around two to three requesting 10-acre leases.

conflicts with recreational and commercial activities. Currently, lease applications in the central and southern regions are less than the allowed five acres.

The rule changes will also add flexibility for shellfish growers to meet minimum production requirements. These changes will be especially beneficial in the event that growers experience personal hardships or “acts of God” that may inhibit their ability to fully cultivate their shellfish lease or franchise. Not meeting production requirements is a common issue in over half of existing shellfish leases. This lack of production is often due to weather events such as hurricanes, freezes or high rainfall that can adversely affect the salinity of a lease site. Also, since shellfish leases are usually small one or two person operations, an illness or family emergency can often affect production. Additional changes to improve the structure and clarity of the rules will benefit the regulated public through better understanding of the rules and ability to adhere to the legal requirements.

Comprehensive Statement of Costs and Benefits

Rule changes associated with the Oyster Fishery Management Plan Amendment 4 and Hard Clam Fishery Management Plan Amendment 2 are expected to have a total cost to the state of \$9,980 in FY 2017 and a cost of \$7,340 recurring thereafter (Tables 2 and 3). The proposed rules will create unquantified benefits for the private sector. These costs and benefits will not meet the threshold of \$1 million in aggregate costs and benefits to be considered rule changes with a substantial economic impact. Specifically:

- 1) Amendments to 15A NCAC 03K .0201 would align the maximum daily harvest limit for oysters with current management and clarify proclamation authority language. The rule change is expected to improve public clarity of oyster harvest limits and limits of proclamation authority in the fishery. There are no costs expected to be incurred from this rule change.
- 2) Amendments to 15A NCAC 03K .0202 would reduce the culling tolerance from 10 percent to five percent for the possession of sublegal oysters, oyster shell, and cultch material. This rule is expected to incur approximately \$2,640 in initial costs to the NCDMF through purchasing new keelers to measure the sublegal harvest and at least \$5,340 annually in costs to fishermen for expected court costs and fines associated with citations issued for exceeding the allowable culling tolerance. Additionally, fishermen may incur some costs due to the possibility of having to spend more time sorting their catch, fishing for a longer period of time to reach the daily oyster harvest limit, or travelling to a different location to find the quality of oysters. These costs will be highly variable from year to year and among individuals, therefore they could not be quantified with any certainty. The oyster resource and the commercial and recreational oyster fisheries are expected to benefit from the reduction in culling tolerance, with fewer sublegal oysters, oyster shell, and cultch material being removed from the water.
- 3) Amendments to 15A NCAC 03K .0302 would remove the mechanical clam harvest area on public bottom in the Pamlico Sound that may be opened by proclamation and clarify proclamation authority language. This rule change may incur some costs through potential forgone harvest; however, these costs are expected to be minimal as these areas have not been opened since 2007 and will likely continue to remain closed under the Hard Clam Fishery Management Plan should the proposed rule changes not occur. The rule change is expected to continue to minimize user conflicts with the blue crab fishery and protect oyster and submerged aquatic vegetation resources in the area. Additionally, the public will benefit from clarifying proclamation authority for clam harvest restrictions and standardizing the rule language for proclamation authority to match other similar rules.
- 4) Amendments to 15A NCAC 03O .0114 would add convictions for theft of shellfish from leases or franchises to the list of convictions that may result in revocation of fishing licenses to implement stronger deterrents to shellfish theft and intentional aquaculture gear damage. This is expected to impose new potential costs to those convicted of stealing shellfish from a lease; however, these costs are expected to be minimal overall. The proposed rule changes will benefit shellfish growers by discouraging theft of their product and intentional damage of aquaculture gear. There would be an estimated cost to the state of \$2,000 in the initial year for foregone license renewal fees.
- 5) Amendments to 15A NCAC 03O .0201 and 03O .0208 would clarify how production and marketing rates are calculated for shellfish leases and franchises, expand the maximum potential lease size to ten acres in all areas, specify criteria for an extension of up to two years to meet production requirements in the event of unforeseen circumstances, and improve the clarity of rule

language. There are no expected costs associated with the proposed rule changes for shellfish growers. Some commercial fishermen may be impacted if leased areas increase or are expanded as a result of limitations placed on some commercial gears that cannot be used in shellfish leases. Due to the limited area that these impacts may occur, extensive public input involved in the leasing process, and cap on maximum lease acreage of 10 acres, these impacts are expected to be negligible and easily offset. The proposed rule changes will benefit shellfish growers by decreasing the per-acre cost of a large lease application (more than five acres) and providing increased flexibility in meeting production requirements.

Table 2. Estimated annual costs and benefits by rule

COSTS			BENEFITS		
Rule	FY2017	FY2018	FY2017	FY2018	
15ANCAC03K.0201					
State	-	-	-	-	
Private	-	-	+B	+B	
15ANCAC03K.0202					
State	(2,640)	-	-	-	
Private	(5,340)	(5,340)	+B	+B	
15ANCAC03K.0302					
State	-	-	-	-	
Private	-	-	+B	+B	
15ANCAC03O.0114					
State	(2,000)	(2,000)	-	-	
Private	-C	-C	+B	+B	
15ANCAC03O.0201and.0208					
State	-	-	-	-	
Private	-	-	+B	+B	
Total	\$(9,980)	\$(7,340)	+B	+B	

"C" and "B" represent unquantified costs or benefits. Please refer to the discussion of the relevant rule change for more details. Neither the unquantified costs nor the unquantified benefits are expected to be substantial (>\$1M), either individually or in total.

Table 3. Summary of Estimated Economic Impact

	FY2017	FY2018
Costs		
State	(4,640)	(2,000)
Private	(5,340) -C	(5,340) -C
Benefits		
State	-	-
Private	+B	+B
Net Impact	(9,980) -C +B	(7,340) -C +B
NPV (7% discount rate)	\$(15,738) -C +B	

"C" and "B" represent unquantified costs or benefits. Please refer to the discussion of the relevant rule change for more details. Neither the unquantified costs nor the unquantified benefits are expected to be substantial (>\$1M), either individually or in total.

Literature Cited

NCDMF. 2001. North Carolina Hard Clam Fishery Management Plan. North Carolina Department of Environment and Natural Resources. North Carolina Division of Marine Fisheries. 167 pp.

NCDMF. 2008. North Carolina Hard Clam Fishery Management Plan Amendment 1. North Carolina Department of Environment and Natural Resources. North Carolina Division of Marine Fisheries. 315 pp.

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Appendix 1: Proposed Rule Changes

15A NCAC 03K .0201 ~~OPEN SEASON AND POSSESSION LIMIT~~ OYSTER HARVEST MANAGEMENT

(a) It is unlawful to take or possess oysters from public ~~bottoms~~ bottom except from October 15 through March 31.

(b) The Fisheries Director may, by proclamation, ~~close and open the season within the time period stated herein or close and open any of the various waters to the taking of oysters depending on the need to protect small oysters and their habitat, the amount of saleable oysters available for harvest, the number of days harvest is prevented due to unsatisfactory bacteriological samples and weather conditions, and the need to prevent loss of oysters due to parasitic infections and thereby reduce the transmission of parasites to uninfected oysters or other variable conditions and may impose any or all of the following restrictions on the taking of oyster harvest:~~ oysters:

- (1) ~~Specify days of the week harvesting will be allowed; time;~~
- (2) ~~Specify areas; area;~~
- (3) ~~Specify means and methods which may be employed in the taking; methods;~~
- (4) ~~Specify time period; season within the period set forth in Paragraph (a) of this Rule;~~
- (5) ~~Specify the quantity, but shall not exceed possession of more than 50 bushels in a commercial fishing operation; and~~
- (5) Specify size, but the minimum size specified shall not be less than three inches, except the minimum size specified shall not be less than two and one-half inches to prevent loss of oysters due to predators, pests, or infectious oyster diseases; and
- (6) ~~Specify the minimum size limit by shell length, but not less than 2 1/2 inches.~~
- (6) Specify quantity, but shall not exceed possession of more than 20 standard U.S. bushels in a commercial fishing operation.

Authority G.S. 113-134; 113-182; 113-201; ~~113-221~~; 113-221.1; 143B-289.52

15A NCAC 03K .0202 ~~SIZE LIMIT AND CULLING TOLERANCE~~ CULLING REQUIREMENTS FOR OYSTERS

(a) It is unlawful to possess oysters which have accumulated dead shell, accumulated oyster cultch material, a shell length less than that specified by ~~proclamation, proclamation issued under the authority of 15A NCAC 03K .0201, or any combination thereof that exceeds a 10 percent~~ five-percent tolerance limit by volume. In determining whether the tolerance limit is exceeded, the Fisheries Director and his agents may grade all, or any portion, or any combination of portions of the entire quantity being graded, and in cases of violations, may seize and return to public bottom or otherwise dispose of the oysters as authorized by law.

(b) All oysters shall be culled ~~by the catcher~~ where harvested and all oysters of less than legal size, accumulated dead ~~shell-shell, and cultch material, material~~ shall be immediately returned to the bottom from which taken.

(c) This Rule shall not apply to oysters imported from out-of-state solely for shucking by shucking and packing plants currently permitted by the ~~Shellfish Sanitation Section of the Division of Environmental Health~~ Division of Marine Fisheries.

Authority G.S. 113-134; 113-182; 143B-289.52

15A NCAC 03K .0302 ~~MECHANICAL HARVEST SEASON~~ MECHANICAL HARVEST OF CLAMS FROM PUBLIC BOTTOM

(a) It is unlawful to take, buy, sell, or possess any clams taken by mechanical methods from public bottom unless the season is open.

(b) ~~except that the~~ The Fisheries Director may, by proclamation, open and close the season at any time in the Atlantic Ocean and only ~~between from~~ December 1 through March 31 in Internal Coastal Waters. ~~internal waters for the use of mechanical clam harvesting gear. The Fisheries Director is further empowered to impose any or all of the following restrictions:~~

- (1) ~~specify number of days;~~
- (2) ~~specify areas;~~
- (3) ~~specify time period;~~
- (4) ~~specify quantity or size; and~~
- (5) ~~specify means/methods. Any proclamation specifying means or methods must be approved by the Marine Fisheries Commission prior to issuance.~~

~~(b)(c)~~ The Fisheries Director may, by proclamation, open to the taking of clams by mechanical methods from public bottom during open seasons only areas that have been opened at any time from January 1979 through September 1988 in:

- (1) Newport, North, White Oak, and New rivers;
- (2) Core and Bogue sounds;
- (3) the Intracoastal Waterway north of "BC" Marker at Topsail Beach; and
- (4) the Atlantic Ocean.

~~in Core and Bogue Sounds, Newport, North, White Oak and New Rivers and the Intracoastal Waterway north of "BC" Marker at Topsail Beach which have been opened at any time from January, 1979, through September, 1988, to the harvest of clams by mechanical methods. The Fisheries Director may, by proclamation, open the Atlantic Ocean and the area or any portion of the area in Pamlico Sound bounded by a line beginning on Portsmouth Island at a point 35° 01.5000' N 76° 06.0000' W; running northerly to a point 35° 06.0000' N 76° 06.0000' W; running westerly to a point 35° 06.0000' N 76° 10.0000' W; running southerly to a point 35° 01.5000' N 76° 10.0000' W; running easterly to the point of beginning to the harvest of clams by mechanical methods. Other areas opened for purposes as set out in 15A NCAC 03K .0301(b) shall open only for those purposes. A list of areas as described in this Paragraph is available upon request at the Division of Marine Fisheries, 3441 Arendell Street, Morehead City, NC 28557.~~

(d) The Fisheries Director may, by proclamation, impose any or all of the following additional restrictions for the taking of clams by mechanical methods from public bottom during open seasons:

- (1) specify time;
- (2) specify means and methods;
- (3) specify size; and
- (4) specify quantity.

Authority G.S. 113-134; 113-182; ~~113-221~~; 113-221.1; 143B-289.52

15A NCAC 03O .0114 SUSPENSION, REVOCATION AND REISSUANCE OF LICENSES

(a) All commercial and recreational licenses issued under Article 14A, Article 14B, and Article 25A of Chapter 113 are subject to suspension and revocation.

(b) A conviction resulting from being charged by an inspector under G.S. 14-32, 14-33 or 14-399 shall be deemed a conviction for license suspension or revocation purposes.

(c) Upon receipt of notice of a licensee's conviction as specified in G.S. 113-171 or a conviction as specified in Paragraph (b) of this Rule, the Fisheries Director shall determine whether it is a first, a second, a third or a fourth or subsequent conviction. Where several convictions result from a single transaction or occurrence, the convictions shall be treated as a single conviction so far as suspension or revocation of the licenses of a licensee is concerned. For a second conviction, the Fisheries Director shall suspend all licenses issued to the licensee for a period of 30 days; for a third conviction, the Fisheries Director shall suspend all licenses issued to the licensee for a period of 90 days; for a fourth or subsequent conviction, the Fisheries Director shall revoke all licenses issued to the licensee, except:

- (1) For a felony conviction under G.S. 14-399, the Fisheries Director shall suspend all licenses issued to the licensee for a period of one year;
- (2) For a first conviction under G.S. 113-187(d)(1), the Fisheries Director shall suspend all licenses issued to the licensee for a period of one year; for a second or subsequent conviction under G.S. 113-187(d)(1), the Fisheries Director shall revoke all licenses issued to the licensee;
- (3) For a conviction under G.S. 113-208, 113-209, or 113-269, the Fisheries Director shall revoke all licenses issued to the licensee; and
- (4) For a conviction under G.S. 14-32 or 14-33, when the offense was committed against a marine fisheries inspector the Fisheries Director shall revoke all licenses issued to the licensee; the former licensee shall not be eligible to apply for reinstatement of a revoked license or for any additional license authorized in Article 14A, Article 14B and Article 25A of Chapter 113 for a period of two years.

(d) After the Fisheries Director determines a conviction requires a suspension or revocation of the licenses of a licensee, the Fisheries Director shall cause the licensee to be served with written notice of suspension or revocation. The written notice may be served upon any responsible individual affiliated with the corporation, partnership, or association where the licensee is not an individual. The notice of suspension or revocation shall be served by an inspector or other agent of the Department or by certified mail, must state the ground upon which it is based, and takes effect immediately upon service. The agent of the Fisheries Director making service shall then or subsequently, as

may be feasible under the circumstances, collect all license certificates and plates and other forms or records relating to the license as directed by the Fisheries Director.

(e) Where a license has been suspended, the former licensee shall not be eligible to apply for reissuance of license or for any additional license authorized in Article 14A, Article 14B and Article 25A of Chapter 113 during the suspension period. Licenses shall be returned to the licensee by the Fisheries Director or the Director's agents at the end of a period of suspension.

(f) Where a license has been revoked, the former licensee shall not be eligible to apply for reinstatement of a revoked license or for any additional license authorized in Article 14A, Article 14B and Article 25A of Chapter 113 for a period of one year, except as provided in Paragraph (c)(4) of this Rule. For a request for reinstatement following revocation, the eligible former licensee shall satisfy the Fisheries Director that the licensee will strive in the future to conduct the operations for which the license is sought in accord with all applicable laws and rules by sending a request for reinstatement in writing to the Fisheries Director, Division of Marine Fisheries, P.O. Box 769, Morehead City, North Carolina 28557. Upon the application of an eligible former licensee after revocation, the Fisheries Director may issue one license sought but not another, as deemed necessary to prevent the hazard of recurring violations of the law.

(g) A licensee shall not willfully evade the service prescribed in this Rule.

Authority G.S. 113-168.1; 113-171; S.L. 2010-145

15A NCAC 03O .0201 STANDARDS AND REQUIREMENTS FOR SHELLFISH BOTTOM LEASES AND FRANCHISES AND WATER COLUMN LEASES

(a) All areas of the public ~~bottoms-bottom~~ underlying ~~coastal fishing waters~~ Coastal Fishing Waters shall meet the following ~~standards-standards and requirements~~, in addition to the standards in G.S. 113-202 in order to be deemed suitable for leasing for shellfish cultivation purposes:

- (1) ~~The the proposed lease area must shall~~ not contain a ~~natural shellfish bed which is defined as "natural shellfish bed"~~, as defined in G.S. 113-201.1 or have 10 bushels or more of shellfish per ~~acre-acre~~;
- (2) ~~The the proposed lease area must shall~~ not be closer than 100 feet to a developed shoreline, except no minimum setback is required when the area to be leased borders the applicant's property or the property of ~~riparian owners~~ "riparian owners", as defined in G.S. 113-201.1 who have consented in a notarized ~~statement. In statement, or is in~~ an area bordered by undeveloped ~~shoreline, no minimum setback is required shoreline; and~~;
- (3) ~~The the proposed lease area shall~~ not be less than one-half acre and shall not exceed ~~five-10~~ acres for all ~~areas except those areas open to the mechanical harvest of oysters where proposed lease area shall not exceed 10 acres-areas~~.

~~This Subparagraph shall not be applied to reduce any holdings as of July 1, 1983.~~

~~(b) Persons holding five or more acres under shellfish lease or franchise shall meet the standards established in Paragraph (c) of this Rule prior to acceptance of applications for additional shellfish lease acreage.~~

~~(b) To be deemed suitable for leasing for aquaculture purposes, water columns superjacent to leased bottom shall meet the standards in G.S. 113-202.1 and water columns superjacent to franchises recognized pursuant to G.S. 113-206 shall meet the standards in G.S. 113-202.2.~~

~~(c) Franchises To avoid termination, franchises recognized pursuant to G.S. 113-206 and shellfish bottom leases shall meet the following standards in addition to the standards in G.S. 113-202. In order to avoid termination, franchises and shellfish bottom leases shall requirements, in addition to the standards in G.S. 113-202:~~

- (1) ~~Produce-produce~~ and market 10 bushels of shellfish per acre per year; and
- (2) ~~Plant-plant~~ 25 bushels of seed shellfish per acre per year or 50 bushels of cultch per acre per year, or a combination of cultch and seed shellfish where the percentage of required cultch planted and the percentage of required seed shellfish planted totals at least 100 percent.

~~(d) To avoid termination, water column leases shall:~~

- (1) ~~produce and market 40 bushels of shellfish per acre per year; or~~
- (2) ~~plant 100 bushels of cultch or seed shellfish per acre per year.~~

~~(d)(e) The following standards shall be applied to determine compliance with Subparagraphs (1) and (2) of Paragraph (e) Paragraphs (c) and (d) of this Rule:~~

- (1) Only shellfish marketed, planted, or produced ~~or marketed according to the definitions as defined in 15A NCAC 03I .0101 as the fishing activities "shellfish marketing from leases and franchises", "shellfish planting effort on leases and franchises", or "shellfish production on leases and franchises"~~ shall be submitted on production/utilization-reporting forms ~~as set forth in 15A NCAC 03O .0207 for shellfish-leases and franchises.~~

- (2) If more than one ~~shellfish~~ lease or franchise is used in the production of shellfish, one of the leases or franchises used in the production of the shellfish ~~must shall~~ be designated as the producing lease or franchise for those shellfish. Each bushel of shellfish may be produced by only one ~~shellfish~~ lease or franchise. Shellfish transplanted between leases or franchises may be credited as planting effort on only one lease or franchise.
- (3) Production and marketing information and planting effort information shall be compiled and averaged separately to assess compliance with the ~~standards requirements~~. The lease or franchise ~~must shall~~ meet ~~both~~ the production requirement and the planting effort requirement within the dates set forth in G.S. 113-202.1 and 202.2 to be ~~judged deemed~~ in compliance ~~with these standards for shellfish bottom leases~~. The lease or franchise shall meet either the production requirement or the planting effort requirement within the dates set forth in G.S. 113-202.1 and 202.2 to be deemed in compliance for water column leases.
- (4) All bushel measurements shall be in U.S. Standard Bushels.
- ~~(4)(5)~~ (5) In determining production and marketing averages and planting effort averages for information not reported in bushel measurements, the following conversion factors shall be used:
 - (A) 300 oysters, 400 clams, or 400 scallops equal one bushel; and
 - (B) 40 pounds of scallop shell, 60 pounds of oyster shell, 75 pounds of clam ~~shell and shell~~, or 90 pounds of fossil stone equal one bushel.
- ~~(5)~~ In the event that a portion of an existing lease or franchise is obtained by a new owner, the production history for the portion obtained shall be a percentage of the originating lease or franchise production equal to the percentage of the area of lease or franchise site obtained to the area of the originating lease or franchise.
- (6) Production and marketing rate averages shall be computed irrespective of transfer of the lease or franchise. The production and marketing rates shall be ~~averaged~~ averaged for the following situations using the time periods described:
 - (A) for an initial bottom lease or franchise, over the consecutive full calendar years remaining on the bottom lease or franchise contract after December 31 following the second anniversary of the initial bottom leases and franchises lease or franchise;
 - (B) for a renewal bottom lease or franchise, over the consecutive full calendar years beginning January 1 of the final year of the previous bottom lease or franchise term and ending December 31 of the final year of the current bottom lease contract for renewal leases or franchise contract;
 - (C) for a water column lease, over the first five-year five-year period for an initial water column leases lease and over the most recent five-year five-year period thereafter for a renewal water column leases lease; or
 - (D) for a bottom lease or franchise issued an extension period under 15A NCAC 03O .0208, over the most recent five-year period.~~Production and marketing rate averages shall be computed irrespective of transfer of the shellfish lease or franchise.~~
- ~~(7)~~ All bushel measurements shall be in U.S. Standard Bushels.
- ~~(7)~~ In the event that a portion of an existing lease or franchise is obtained by a new owner, the production history for the portion obtained shall be a percentage of the originating lease or franchise production equal to the percentage of the area of lease or franchise site obtained to the area of the originating lease or franchise.
- (f) Persons holding five or more acres under all shellfish bottom leases and franchises combined shall meet the requirements established in Paragraph (c) of this Rule prior to the Division of Marine Fisheries accepting applications for additional shellfish lease acreage.
- ~~(e) Water columns superjacent to leased bottoms shall meet the standards in G.S. 113-202.1 in order to be deemed suitable for leasing for aquaculture purposes.~~
- ~~(f) Water columns superjacent to franchises recognized pursuant to G.S. 113-206 shall meet the standards in G.S. 113-202.2 in order to be deemed suitable for leasing for aquaculture purposes.~~
- ~~(g) Water column leases must produce and market 40 bushels of shellfish per acre per year to meet the minimum commercial production requirement or plant 100 bushels of cultch or seed shellfish per acre per year to meet commercial production by planting effort. The standards for determining production and marketing averages and planting effort averages shall be the same for water column leases as for bottom leases and franchises set forth in~~

Paragraph (d) of this Rule except that either the produce and market requirement or the planting requirement must be met.

Authority G.S. 113-134; 113-201; 113-202; 113-202.1; 113-202.2; 113-206; 143B-289.52

15A NCAC 03O .0208 ~~CANCELLATION~~ TERMINATION OF SHELLFISH BOTTOM LEASES AND FRANCHISES AND WATER COLUMN LEASES

(a) Procedures for termination of shellfish leaseholds are provided in G.S. 113-202. The Secretary's decision to terminate a leasehold may be appealed by initiating a contested case as outlined in G.S. 150B-23.

~~(a)(b) In addition to~~ Consistent with the grounds for termination established by G.S. 113-202, the Secretary shall begin action to terminate leases and franchises for failure to produce and market shellfish or for failure to maintain a planting effort of cultch or seed shellfish in accordance with 15A NCAC 03O .0201 substantial breach of compliance with the provisions of rules of the Marine Fisheries Commission governing use of the leasehold includes the following, except as provided in Paragraph (c) of this Rule:

- (1) failure to meet shellfish production and marketing requirements for bottom leases or franchises in accordance with 15A NCAC 03O .0201;
- (2) failure to maintain a planting effort of cultch or seed shellfish for bottom leases or franchises in accordance with 15A NCAC 03O .0201;
- (3) failure either to meet shellfish production and marketing requirements or to maintain a planting effort of cultch or seed shellfish for water column leases in accordance with 15A NCAC 03O .0201;
- (4) the Fisheries Director has cause to believe the holder of private shellfish bottom or franchise rights has encroached or usurped the legal rights of the public to access public trust resources in navigable waters, in accordance with G.S. 113-205 and 15A NCAC 03O .0204; or
- (5) the Attorney General initiates action for the purpose of vacating or annulling letters patent granted by the State, in accordance with G.S. 146-63.

~~(b) Action to terminate a shellfish franchise shall begin when there is reason to believe that the patentee, or those claiming under him, have done or omitted an act in violation of the terms and conditions on which the letters patent were granted, or have by any other means forfeited the interest acquired under the same. The Division shall investigate all such rights issued in perpetuity to determine whether the Secretary should request that the Attorney General initiate an action pursuant to G.S. 146-63 to vacate or annul the letters patent granted by the state.~~

~~(c) Action to terminate a shellfish lease or franchise shall begin when the Fisheries Director has cause to believe the holder of private shellfish rights has encroached or usurped the legal rights of the public to access public trust resources in navigable waters.~~

(c) Consistent with G.S. 113-202(11) and 113-201(b), a leaseholder that failed to meet requirements in G.S. 113-202, 15A NCAC 03O .0201 or this Rule may be granted a single extension period of no more than two years per contract period upon sufficient showing of hardship by written notice to the Fisheries Director prior to the expiration of the lease term that one of the following occurrences caused or will cause the leaseholder to fail to meet lease requirements:

- (1) death, illness, or incapacity of the leaseholder or his "immediate family", as defined in G.S. 113-168 that prevented or will prevent the leaseholder from working the lease;
- (2) damage to the lease from hurricanes, tropical storms or other severe weather events recognized by the National Weather Service;
- (3) shellfish mortality caused by disease, natural predators, or parasites; or
- (4) damage to the lease from a manmade disaster that triggers a state emergency declaration or federal emergency declaration.

(d) In the case of hardship as described in Subparagraph (c)(1), the notice shall state the name of the leaseholder or immediate family member, and either the date of death, or the date and nature of the illness or incapacity. The Fisheries Director may require a doctor's verification of the illness or incapacity. Written notice and any supporting documentation shall be addressed to the Director of the Division of Marine Fisheries, P.O. Box 769, 3441 Arendell St., Morehead City, NC 28557-0769.

(e) Requirements for transfer of beneficial ownership of all or any portion of or interest in a leasehold are provided in G.S. 113-202(k).

~~(d) In the event action to terminate a lease is begun, the owner shall be notified by registered mail and given a period of 30 days in which to correct the situation. Petitions to review the Secretary's decision must be filed with the Office of Administrative Hearings as outlined in 15A NCAC 03P .0102.~~

~~(e) The Secretary's decision to terminate a lease may be appealed by initiating a contested case as outlined in 15A NCAC 03P .0102.~~

Authority G.S. 113-134; 113-201; 113-202; 113-202.1; 113-202.2; 113-205; 143B-289.52

Appendix 2: Referenced Rule Language (for information purposes only)

15A NCAC 03H .0103 PROCLAMATION AUTHORITY OF FISHERIES DIRECTOR

(a) It is unlawful to violate the provisions of any proclamation issued by the authority of Marine Fisheries Commission Rule.

(b) Unless specific variable conditions are set forth in a rule granting proclamation authority to the Fisheries Director, variable conditions triggering the use of the Fisheries Director's proclamation authority may include any of the following:

- (1) compliance with changes mandated by the Fisheries Reform Act and its amendments;
- (2) biological impacts;
- (3) environmental conditions;
- (4) compliance with Fishery Management Plans;
- (5) user conflicts;
- (6) bycatch issues; and
- (7) variable spatial distributions.

Authority G.S. 113-134; 113-135; 113-182; 113-221.1; 143B-289.52;

15A NCAC 03I .0102 TEMPORARY SUSPENSION OF RULES

The Fisheries Director is authorized to suspend, in whole or in part, until the next meeting of the Marine Fisheries Commission, or for a lesser period, the operation of any rule of the Marine Fisheries Commission regarding coastal fisheries which may be affected by variable conditions.

Authority G.S. 113-134; 143B-289.52;